#### A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: **DELICA HARDWOOD** 

*Agreement* # **30-102086** 

- 2. Name of applicant: Washington Department of Natural Resources
- 3. Address and phone number of applicant and contact person:

Washington Department of Natural Resources South Puget Sound Region 950 Farman Ave N. Enumclaw, WA 98022

**Contact: Audrey Mainwaring** 

- 4. Date checklist prepared: 12/03/2021
- 5. Agency requesting checklist: Washington Department of Natural Resources
- 6. Proposed timing or schedule (including phasing, if applicable):

a. Auction Date:

08/23/2022

b. Planned contract end date (but may be extended):

05/31/2024

c. Phasing:

None

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

 $\square$  *No, go to question 8.* 

 $\boxtimes$  Yes, identify any plans under A-7-a through A-7-d:

a. Site Preparation:

No site preparation herbicide application is currently planned.

b. Regeneration Method:

Both units will be hand-planted with native red alder seedlings following harvest.

c. Vegetation Management:

Possible treatments including a thinline herbicide application for bigleaf maple management, could occur following harvest. Treatments will be based on vegetative competition, and will ensure a free-to-grow status that complies with Forest Practices Standards. No broadcast herbicide treatments will occur.

Approved watershed analyses are available on the DNR website, under Forest Regulations.

Geologic assessment is available for review in Forest Practices Application Review System (FPARS) with FPA/N 2422920.

FPA/N 2422920 is available for viewing in FPARS

acreage deduction of leave trees. Approximately 1,405 MBF of mixed conifer and hardwoods will be harvested. Due to existing forest health issues (extensive laminated root rot) observed onsite, red alder will be planted following harvest rather than conifer species that are susceptible to this issue.

Net unit acreage is as follows:

Unit 1: 15 Unit 2: 28

b. Describe the stand of timber pre-harvest (include major timber species and origin date), type of harvest and overall unit objectives.

Pre-harvest Stand Description:

Unit	Origin Date	Major Timber Species	Type of Harvest
1	1926	Douglas-fir, bigleaf maple, red alder, western hemlock, western redcedar, grand fir	Variable Retention Harvest
2	1935	Douglas-fir, bigleaf maple, red alder, western hemlock, western redcedar, grand fir	Variable Retention Harvest

Origin date for Unit 1 determined from data collected by on-site tree core assessments. Origin date for Unit 2 was determined using DNR's Combined Origin Year raster layer on GIS.

Many of the existing conifer species exhibit indications of laminated root rot.

# **Overall Unit Objectives:**

The objective of this proposal is to manage the stands for trust revenue (specifically the University Transferred (05), and Capital Grant (07) trusts), establish a new stand of trees less susceptible to laminated root rot, maintain long-term informal recreation use, and protect riparian and other sensitive environmental features.

All occurring in Thurston County.

fish habitat and human use of downstream Summit Lake. Forested stands within the WAU appear to be primarily second and third growth stands. This WAU is intensively managed for timber production, including variable retention harvest, thinnings, and partial cuts. The WAU has experienced a high concentration of forestland conversion to residential use, primarily around Summit Lake.

b. Briefly describe existing plans and programs (i.e. the HCP, DNR landscape plans, retention tree plans) and current forest practice rules that provide/require mitigation to protect against potential impacts to environmental concerns listed in question A-13-a.

The Department of Natural Resources has a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning threatened and endangered species and their habitats. The applicable Habitat Conservation Plan (HCP) strategies incorporated into this proposal include:

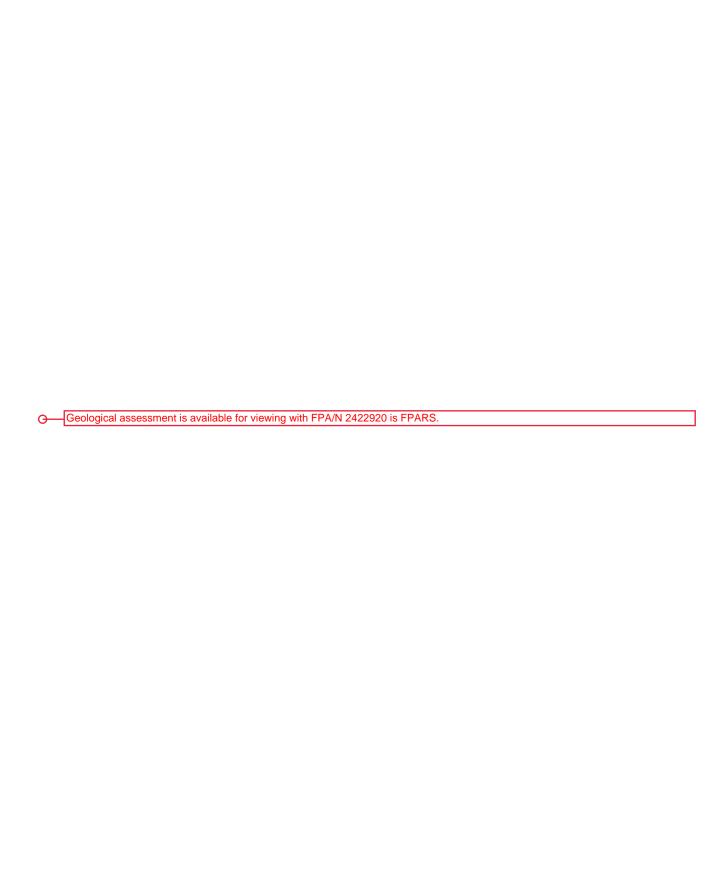
- Retaining Riparian Management Zones (RMZ) to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris. RMZs will develop older riparian forest characteristics that, in combination with other strategies, will help support older riparian forest dependent wildlife and aquatic species.
- Wetland Management Zones (WMZ) will protect water quality, sensitive wetland soils, and to maintain hydrologic function and natural water flow. WMZs will develop older wetland forest characteristics that, in combination with other strategies, will help support older forest dependent wildlife and aquatic species.
- Retaining a minimum of 8 trees per acre (greater than 10 inches diameter at breast height) clumped and scattered throughout the units. This strategy will provide legacy elements for recruitment of future snags, coarse woody debris, multi-layered stands, and large diameter trees. In combination, these features will provide elements of older forest habitat characteristics within the new plantation.

Agency policies and guidelines from the Policy for Sustainable Forests incorporated into this proposal include:

- Generally limiting even-aged harvests to less than 100 acres per unit.
- Managing for consideration of viewshed impacts. Mitigation measures include a
  higher number of leave trees retained within the units than the minimum per DNR's
  HCP, design of and location of individual and grouped leave trees scattered
  throughout the harvest units, focusing on long-lived conifers with full crowns across
  varying elevations.

Development of older forests is an expected outcome of the 1997 Trust Lands Habitat Conservation Plan (HCP), and a policy objective stated in DNR's Policy for Sustainable Forests. Landscape assessments made in May 2021, demonstrate that through implementation of the HCP and other Policies and laws, older forest targets will be met in conservation areas over time. These conservation areas include identified long-term forest cover under the marbled murrelet long-term conservation strategy, riparian areas, areas conserved under the multispecies conservation strategy, potentially unstable slopes, spotted owl nest patches, and spotted owl habitat that must be maintained to comply with the northern spotted owl conservation strategy (within NRF and South Puget Planning Unit dispersal management areas).

• The South Puget HCP Planning Unit will meet at least 10% older forest within conservation areas by 2100.



## **B.** ENVIRONMENTAL ELEMENTS

a. General description of the site (check one):

#### 1. Earth

$\square$ Flat, $\boxtimes$ Rolling, $\square$ H	filly, ☐ Steep Slopes, ☐ Mountainous, ☐ Other:
1 0	the associated WAU(s) or sub-basin(s) within the proposal evations, and forest vegetation zone).
****	WENNIEDY ODEEN

WAU:
WAU Acres:

Elevation Range:
0 - 2304 ft.

Mean Elevation:
550 ft.

Average Precipitation:
52 in./year

Western Hemlock

2. Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

This proposal is a representative example of the WAU at the same elevation and aspect.

- b. What is the steepest slope on the site (approximate percent slope)?
   74% is reflected in DNR's database as the steepest slope onsite. From field observations, this appears to be associated with a road cutslope. The average slopes onsite are significantly less steep.
- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Note: The following table is created from state soil survey data. It is an overview of general soils information for the soils found in the sale area. The actual soil conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors.

State Soil Survey	Soil Texture	
#		
7216	V.GRAVELLY LOAM	
1640	V.GRAVELLY LOAM	
7213	V.GRAVELLY LOAM	

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.



- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*Less than 0.1% of the site will remain as gravel roads.
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: (Include protection measures for minimizing compaction or rutting.)

Erosion control and reduction measures are addressed in the sale layout and harvest system design.

- · The no harvest RMZs and WMZ will function to protect streams and wetlands from sediment delivery.
- · Seasonal restrictions will limit operations to the typical dry season to reduce soil impacts.
- · Yarding will be suspended when potential for excessive soil disturbance exists.
- · Roads will be crowned, ditched and cross-drained. Cross-drains may be installed and maintained.
- · Seasonal timing restrictions may prohibit road construction activities during saturated soil conditions.
- · Leave tree clumps were left around the headwalls of most Type 5 streams and seeps; all Type 5 streams will be protected with a 30-foot Equipment Limitation Zone.
- · Harvested areas will be replanted with native red alder.
- · Skid trails will be left in a condition to not channel water towards riparian areas.
- · Drainage control devices such as culverts (including energy dissipaters), cross drains, and waterbars will be utilized to allow for proper drainage.

#### 2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
  - Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted during proposed activities. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None known.

c. Proposed measures to reduce or control emissions or other impacts to air, if any: **None.** 

## 3. Water

- a. Surface Water:
  - 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" as referenced on the DNR website: <a href="http://www.dnr.wa.gov/sepa">http://www.dnr.wa.gov/sepa</a>. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions Timber Sales." Proposal documents also available for review at the DNR Region Office.)
  - $\square$  No  $\boxtimes$  Yes, describe in 3-a-1-a through 3-a-1-c below
  - a. Downstream water bodies: Summit Lake
  - b. Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for
			streams)
Unnamed stream	3	2	Average 165
Unnamed stream	4	1	Minimum 100
Wetland	Forested	1	Minimum 100
	(>1/4 acre, <		
	1 acre)		

c. List any additional RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures and wind buffers. **None** 

2)	Will the project require any work over, in, or adjacent to (within 200 feet) the described
	waters? If yes, please describe and attach available plans.

⊠ Yes (See RMZ/WMZ table above and timber sale maps which are available on the DNR website: <a href="http://www.dnr.wa.gov/sepa">http://www.dnr.wa.gov/sepa</a>. Timber sale maps are also available at the DNR region office.)

Description (include culverts):

 $\square No$ 

Harvest will occur within 200 feet of streams, but beyond the buffer distances listed in the table in B-3a-1-b. Trees may be cut in RMZs for safety or operational needs, but will be left in place to provide large woody debris functions.

G—FPA/N 2422920 indicates: three Type 3 waters; two Type 4 waters; eight Type 5 waters; five wetlands all within 200 feet of the proposal.

10) Is there evidence of changes to channels associated with peak flows in the proposal area (accelerated aggradations, surface erosion, mass wasting, decrease in large organic debris (LOD), change in channel dimensions)?
□ No □ Yes, describe observations:  There is evidence of changes to channels across the WAU. These changes are a result of natural events such as spring runoff from snowmelt and significant storm events. Channel migration, scouring, and deposition of material can be seen in channels across the WAU; this indicates those channels historically experience higher water levels and peak flows
11) Describe any anticipated contributions to peak flows resulting from this proposal's activities which could impact areas downstream or downslope of the proposal area. It is not likely the proposed activity will change the timing, duration, or volume of water during a peak flow event. This proposal limits harvest unit size and proximity to other recent harvests, minimizes the extent of the road network, incorporates road drainage disconnected from stream networks, and implements wide riparian buffers and leave trees within the harvest unit, which all of have mitigating effects on the potential for this proposal to increase peak flows that could impact areas downstream or downslope of the proposal area.
12) Is there a water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, <u>downstream or downslope of the proposed activity?</u>
□ No □ Yes, describe the water resource(s):  Summit Lake is approximately 700 feet downslope. Additionally, there are two subsurface wells approximately 500 feet and 1900 feet downslope from the sale area. Based on the protection measures outlined in B.1.d.5, B.1.h, and B.3.a.16., no measurable impacts are anticipated.
a. Is it likely a water resource or an area of slope instability listed in B-3-12 (above) will be affected by changes in amounts, quality or movements of surface water as a result of this proposal?
$\boxtimes$ No $\square$ Yes, describe possible impacts:
13) Describe any protection measures, in addition to those required by other existing plans and programs (i.e. the HCP, DNR landscape plans) and current forest practice rules included in this proposal that mitigate potential negative effects on water quality and peak flow impacts.
<ul> <li>Type 3, and Type 4 no-harvest RMZ will maintain forest cover.</li> <li>Most Type 5 streams have been protected with leave tree clumps, and a 30-foot Equipment Limitation Zone will be utilized to maintain stream function, stream bank integrity, and minimize possible sediment delivery.</li> <li>The proposal's harvest units are each 100 acres or less to minimize impacts</li> </ul>

to watershed hydrology.

- Allowing green-up (regenerated stands that are either 4 feet tall or 5 years of age) of adjacent stands to minimize impacts to watershed hydrology.
- See B.1.d.5 and B.1.h. for further protection measures.

#### b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No water will be withdrawn or discharged.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up. This proposal is expected to have no impact on ground water.

3)	Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, <u>downstream or downslope</u> of the proposed activity?			
	□ No □ Yes, describe:  Summit Lake is approximately 700 feet downslope. Additionally, there are two subsurface wells approximately 500 feet and 1,900 feet downslope from the sale area. Based on the protection measures outlined in B.1.d.5, B.1.h, and B.3.a.16., no measurable impacts are anticipated.			
	a. Is it likely a water resource or an area of slope instability listed in B-3-b-3 (above) could be affected by changes in amounts, timing, or movements of groundwater as a result this proposal?			
	$\boxtimes$ No $\square$ Yes, describe possible impacts:			
	Note protection measures, if any:			

- c. Water runoff (including stormwater):
  - 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Water runoff, including storm water, from road surfaces will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts.

		2)	Could waste materials enter ground or surface waters? If so, generally describe.  □ No घ Yes, describe:
			Waste materials, such as sediment or slash, may enter surface water.
			······································
			Note protection measures, if any:
			No additional protection measures will be necessary to protect these resources beyond those described in B-1-d-2, B-1-h, B-3-a-2, and B-3-a-13.
		3)	Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If
			so, describe.  No changes to drainage patterns are expected.
			10 changes to dramage patterns are expected.
Ċ		-	ed measures to reduce or control surface, ground, and runoff water, and drainage pattern
		-	s, if any: rface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-
			B-3-b-3, and B-3-c-2.
		,	
4 5			
4. P	lant	ts	
а	ı. (	Check	the types of vegetation found on the site:
			duous tree:
		⊠ Al	$\operatorname{der} \square \operatorname{Aspen} \square \operatorname{\textit{Birch}} \square \operatorname{\textit{Cottonwood}} \boxtimes \operatorname{Maple} \square \operatorname{\textit{Western Larch}}$
		☐ Oti	her:
	$\boxtimes$	Everg	green tree:
		$\boxtimes Do$	uglas-Fir $\square$ Engelmann Spruce $\boxtimes$ Grand Fir $\square$ Lodgepole Pine
		$\square$ Mo	ountain Hemlock $\square$ Noble Fir $\square$ Pacific Silver Fir $\square$ Ponderosa Pine
		□ Siti	ka Spruce $oxtimes$ Western Hemlock $oxtimes$ Western Redcedar $oxtimes$ Yellow Cedar
		☐ Otl	
	$\boxtimes$	Shrub	
			uckleberry $\square$ Rhododendron $\boxtimes$ Salmonberry $\boxtimes$ Salal
			her: Oregon grape, vine maple
		Ferns	
		Grass	
		Pastu	
	Ш	-	or Grain
			$r$ chards $\square$ $V$ ineyard $\square$ $O$ ther $P$ ermanent $C$ rops
	X		Soil Plants:
		□ Ot	ıllrush □ Buttercup □ Cattail ⊠ <i>Devil's Club</i> ⊠ Skunk Cabbage
			r plants:
	ш		lgrass   Milfoil   Water Lily
			•
			types of vegetation:
			communities of concern:
		1 idill	Communication of Control In.

Bald eagles are known to use the vicinity, but no nests were observed or known to be within or near the site.

Species / Habitat: Aquatic Habitat Protection Measures: No-harvest RMZs on

Type 3 and 4 streams.

Species /Habitat: Upland Habitat Protection Measures: Approximately 13 leave trees per acre were left clumped and scattered in Unit 1 and 9 trees per acre in Unit 2. Snags will be left where operationally feasible. Older large down woody debris will be left onsite.

e. List any invasive animal species known to be on or near the site.

Invasive animal species known to be in the geographic area include:

- Starlings
- House sparrows
- Eurasian collared-dove
- Bullfrogs are found throughout the lowlands of Washington.
- Nutria are found in lakes, wetlands, sloughs, drainage ditches, and irrigation canals along the Columbia River and north to Skagit County.
- There are several exotic leaf rollers of concern that are present in Washington.

None of these species were observed on or near the site.

## 6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
 None.

# 7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

- 1) Describe any known or possible contamination at the site from present or past uses. None known. Summit Lake, downstream of the proposal has experienced a past toxic algae bloom.
- Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
   None known.
- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
  - Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.

Herbicide use will be in accordance with EPA, Washington Department of Agriculture, Forest Practices regulations and follows the standards of the federal Clean Water Act.

- 4) Describe special emergency services that might be required.

  The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
  No petroleum-based products will be disposed of on site. If a spill occurs,
  containment and cleanup will be required. Spill kits are required to be onsite
  during all heavy equipment operations. The cessation of operations may occur
  during periods of increased fire risk. Fire tools and equipment, including
  pump trucks and/or pump trailers, will be required on site during fire season.

No broadcast site preparation spray will occur due to extra caution in the Summit Lake watershed. Depending on the density of bigleaf maple reestablishment or if noxious weeds were to establish on the site, we may need to do a direction or spot herbicide treatment. Should site conditions develop over time where a directed or spot treatment is necessary, the herbicide to be used will be determined based on specific site conditions, plant species being treated, etc. If spray is necessary, outreach to adjacent landowners will occur prior to the application to include timing, location and specific ingredients for the selected herbicide.

NOTE: If contamination of the environment is suspected, the proponent must contact the Department of Ecology.

#### b. Noise

- What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
   None.
- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
  There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area.
- 3) Proposed measures to reduce or control noise impacts, if any: **None.**

#### 8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. (Site includes the complete proposal, e.g. rock pits and access roads.)

Current use of site and adjacent land types:

Timber production and recreation at the site of the proposal. Adjacent to the proposal use of the land includes timber production, residential and recreation. Current use on nearby or adjacent properties should not be affected by this proposal. This proposal adheres to the DNR's Policy for Sustainable Forests and HCP and will not change the use of or affect the current/long term land use of areas.

This proposal will not change the use of or affect the current/long term land use of areas associated with this activity.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

This proposal site has been used as working forest lands. This proposal will retain the site in

This proposal site has been used as working forest lands. This proposal will retain the site in working forest lands.

- Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
   No.
- c. Describe any structures on the site. **None.**

- d. Will any structures be demolished? If so, what? **No.**
- e. What is the current zoning classification of the site? **Long Term Forestry in Thurston County**
- f. What is the current comprehensive plan designation of the site?

  Designated Long-Term Forest Lands in Thurston County
- g. If applicable, what is the current shoreline master program designation of the site? **Not applicable.**
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. **No.**
- i. Approximately how many people would reside or work in the completed project? **None.**
- j. Approximately how many people would the completed project displace? **None.**
- k. Proposed measures to avoid or reduce displacement impacts, if any: **Does not apply.**
- 1. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This project is consistent with current comprehensive plans and zoning classifications.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None.

# 9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply.

c. Proposed measures to reduce or control housing impacts, if any: **None.** 

#### 10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
   Does not apply.
- b. What views in the immediate vicinity would be altered or obstructed?

1	ortation route or designated scenic corridor (e.g., county road, state or attention to the highway, US route, river or Columbia Gorge SMA)?
□ <i>No</i> <b>Portion</b>	☑ Yes, name of the location, transportation route or scenic corridor:  as of this proposal are visible from Summit Lake and Summit Lake Shore  ■ Summi
Road a	s well as some local residences.

1) Is this proposal visible from a residential area, town, city, recreation site, major

How will this proposal affect any views described above?

This proposal will resemble previous timber harvests in the area and background views will change from a stand of mature timber to a view of a recent harvest with mature trees remaining around RMZs, WMZ, Type 3, 4, and some Type 5 streams. There will also be clumps of leave trees scattered throughout. This view will change to that of a young plantation after seedlings are planted and planted trees continue to grow.

Proposed measures to reduce or control aesthetic impacts, if any:
 Leave tree clumps and individuals were scattered across all units to help reduce the aesthetic impacts.

## 11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

- b. Could light or glare from the finished project be a safety hazard or interfere with views? **No.**
- c. What existing off-site sources of light or glare may affect your proposal? **None.**
- d. Proposed measures to reduce or control light and glare impacts, if any: **None.**

#### 12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity? Informal recreational activities include hunting, berry picking, sightseeing, and other informal outdoor recreation activities may occur within the proposal area.

Summit Lake Shore Road and State Route 8 provide access to the forest roads which access the harvest units.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?
   No. Nearest transit spot is approximately 11 miles away.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?
   None.
- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Yes, see A-11-c.

- 1) How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?

  This project will have minimal to no additional impacts on the overall transportation system in the area.
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

  No.
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?
  Approximately 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 4:00 p.m. of the operating period. The completed project will generate less than one vehicular trip per day. Estimates are based on the observed harvest traffic of past projects.
- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

  No.
- h. Proposed measures to reduce or control transportation impacts, if any: **None.**

## 15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No.

	b.	Proposed measures to reduce or control direct impacts on public services, if any. <b>None.</b>		
16. Utilities				
		Check utilities currently available at the site: electricity □ natural gas □ water □ refuse service □ telephone □ sanitary sewer septic system □ other:		
	b.	Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.  None.		

## C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Brandon Mohler

Name of signee Brandon Mohler

Position and Agency/Organization State Lands Assistant Region Manager/DNR

Date Submitted: 05/06/2022

AEM 5/4/2022